Requirements for learning scenario and learning process analytics

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http://edutechwiki.unige.ch/en/Learning_process_analytics

http://edutechwiki.unige.ch/en/
Learning analytics: Kinds ....

- Academic analytics (schools, teachers, programs....)
- Learning analytics – overall behavior / performance how well are students doing, problem students, ....
- Learning analytics - big classes - who is reading what, progress reports,.....
- Learning process analytics -what are participants producing / how do they interact,... -Orchestration!
Project-oriented learning: the bottom line

The learning-by-producing cycle

External resources

Productions

Learning
Project-oriented learning: variants & the common problem

What's going on??
What Inter(actions) + Productions
(both teachers and learners should know)

Includes:
- inquiry-based learning
- problem-based learning
- project-based learning
- project-methodology-based learning
- case-based learning

Pedagogies = Scenarios = Environments
What do we have?

- Good analytics for systems that are not used (EdTech research)
- Some tools for technology that people do use (mostly hacks)
- Main stream “where”-type analytics

(Difficult) data minining and analysis tools
Good analytics - CSCL

Good analytics – Knowledge construction kits

CSILE/Knowledge Forum (Scardamalia & Bereiter,)

Designed for building and interaction
OK analytics – Enquiry blog builder

Ferguson, Buckingham Shum, and Crick (2011)

Relies on self-reporting and requires some setup skills (may be used some day, since blogs are fairly easy)
### OK analytics – StatMediaWiki

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- Nice tool, but buggy and unfinished
- May be used, but Wiki-designs are hard

Rodríguez-Posada et al., 2011

28.06.2012

http://edutechwiki.unige.ch/en/
OK analytics – Project tools

(may be used in engineering education)

Not made for education, agile development must be learned
OK analytics – workflow systems

Virtual Learning Process Environment (VLPE), Adesina and Molloy (2012)

BPMN-based prototype (not easy, not fully mature)
Conclusion: Needs and avenues

Dimensions:

- **Productions**
  - Portfolio/PLE
  - Task mgmt. tools

- **Interactions**
  - Collaboration graphs etc.

- **Reflections**
  - Self-reporting tools & cockpits

- **Management and regulation**
  - Teacher Dashboard

**Tomorrow**

- SOA kits with APIs that can summarize
- Collaboration “graphs” across systems
- Integration with competence development
- General-purpose monitoring and tutoring tools
http://edutechwiki.unige.ch/en

http://edutechwiki.unige.ch/en/Learning_process_analytics
(wiki version of the EdMedia paper)

Questions ?
Other topics to discuss ?